**Jumping Buddies Day 2 Reflection**

*Reflections on planning and instruction*

A lot of the heavy lifting of this lesson was done on Day 1, so I wasn’t too worried about the planning of Day 2. Additionally, Maureen made a chart for me to use in this lesson, so I had a lot of support. I think that the timing/pacing went well. I think it was wise to stress accuracy during the mini-lesson. Some students needed further scaffolding around the idea of accuracy in visual models during the workshop, but the seed was planted on the rug. Students had appropriate materials available and used them in responsible ways.

*Reflections on student learning*

Students seemed engaged in the poster-making process, and not only because it’s fun to use colorful markers. I saw students using the language stems we developed in ways that stretched their thinking. Namely, using the language stems supported students’ attempts to represent their mathematical models in words and to put words to or name phenomena they might otherwise have ignored.

*Implications for the future*

I do want to think more about how to support clear language in mathematics lessons and how to stress the importance of accuracy in visual representations. I think students would benefit from more practice in both of these areas.

*Implied or useful capacities*

* Students leaned into a previous lesson on (least) common multiples to complete their work for this lesson.
* Students used language stems to represent mathematical models in words.
* Students were explicitly taught how to create a double number line.

**The Benches Days 1 & 2 & 3 Reflection**

*Reflections on planning and instruction*

One thing I am learning from working through this unit is just how difficult it can be to gauge the time a certain activity will take and plan accordingly (even when a unit designer has offered a best-guess timeframe). So, while I don’t think the time we spent digging into this unit was a bad thing, it is definitely worth noting. The last day was a wrap up, and involved me trying to synthesize some of the findings that students had shared on the previous day (identifying patterns, cool ways of organizing thinking, some attempts at visual representations). While I tried to engage students in a little bit of conversation, I think it was a difficult day for two reasons: 1. I didn’t spend very much time on this final share and 2. It was not the most dynamic way to learn.

*Reflections on student learning*

I definitely saw evidence of student learning in notebooks and worksheets. The lesson really focused on equivalency and substitution and common multiples, and I saw students making big gains in those areas. However, I think this lesson also provided a particularly interesting opportunity for students to grapple with and struggle through mathematical language. In the previous lesson, we worked with written stems to support some of this work. The last day of the Benches lesson required a lot of spoken mathematical language and it was interesting to see kids puzzle through this.

*Implications for the future*

I’m wondering how to support clear, accurate mathematical language in shares and in working partnerships. I’m thinking about what conversation stems might be useful for this purpose. For example, I am thinking about how to encourage students to name their mathematical ideas in a sort of claims & evidence way (e.g. “I know that this the next number in this pattern will be x because I see that *something something something…*”or “My t-chart shows such and such relationship based on x, y, z…).

*Implied or useful capacities*

* Using t-charts
* Multiple or “fluent” methods of visual representation
* Expressive mathematical language